GENERATIVE AI RADAR
ENERGY, MINING AND UTILITIES

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Generative AI Radar — Energy, mining and utilities

Generative AI is still new, yet enterprises are already exploring its transformative potential

This year will bring further developments in generative AI as organizations familiarize themselves with this transformative technology. So where are they now?

Through this study we aimed to uncover how companies use generative AI, how much they spend on it, how it's being rolled out, and where it makes an impact. We looked at 3,000 companies across 12 industries:

- Automotive
- Consumer packaged goods
- Energy, mining, and utilities
- Financial services
- Healthcare
- High tech
- Insurance
- Life sciences
- Logistics and supply chain
- Manufacturing
- Retail and hospitality
- Telecommunications

Many companies told us they are already spending significant sums of money — and are set to spend more this year. However, this pattern isn't the same across sectors. In this data book we highlight how energy, mining and utilities compares with the rest of the pack. All data used in this data book are from Generative AI Radar North America, Europe, and APAC.

Generative AI spending

Energy, mining and utilities generative AI spending set to grow in 2024

Energy, mining, and utilities spending growth is middling — Generative AI spending by energy, mining, and utilities companies expected to grow to $1 billion in 2024.
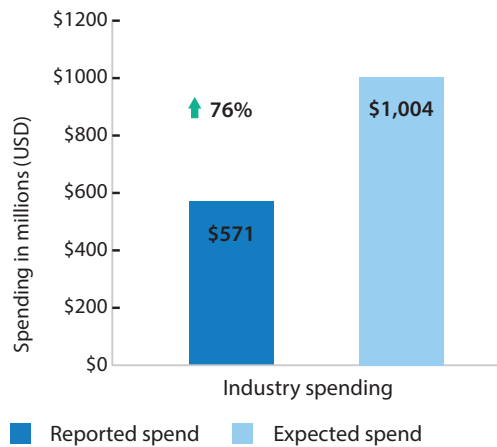
Expected generative AI spending growth in 2024 by industry

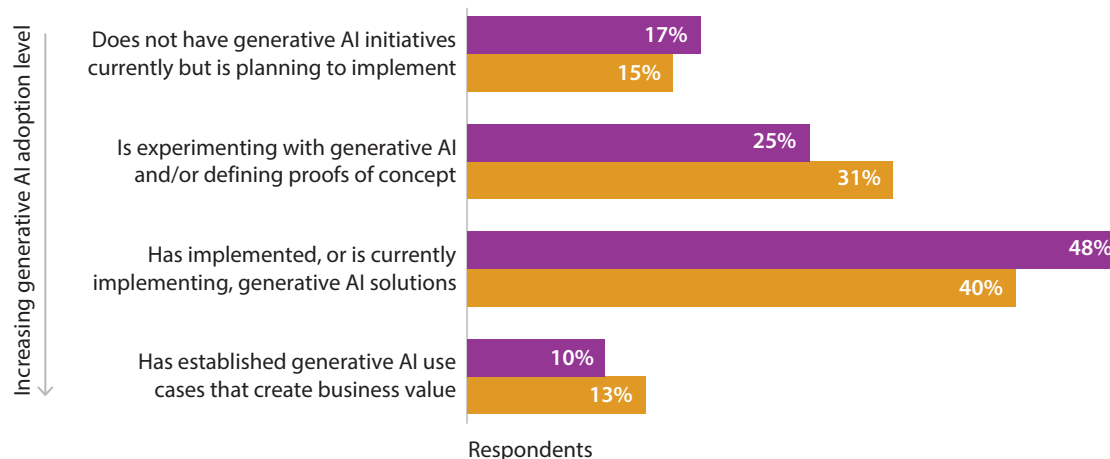Energy, mining, and utilities generative AI spending
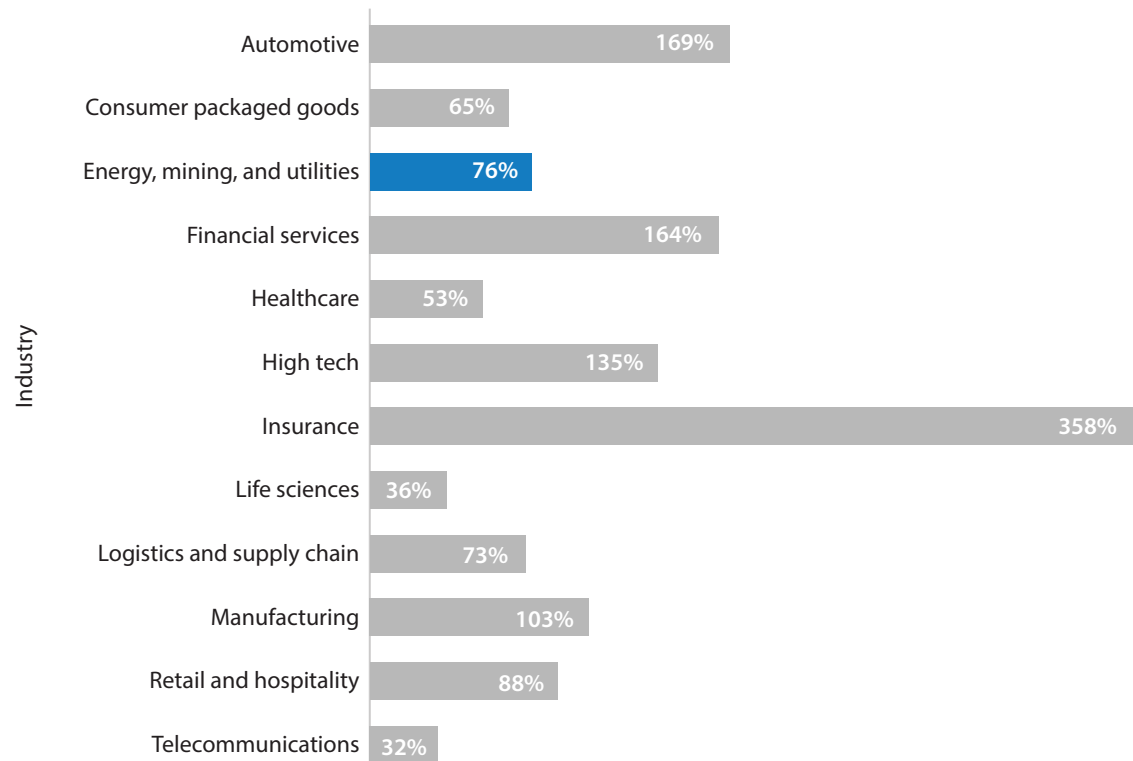
Generative AI adoption

Nearly 50% of energy, mining, and utilities firms have implemented or are implementing generative AI

Only 17% of energy, mining, and utilities has not started any generative AI initiatives — Most of these firms have started their generative AI journey. 10% have already created business value with their initiatives.

Generative AI adoption by proportion of respondents

Does not have generative AI initiatives currently but is planning to implement
- Energy, mining, and utilities: 17%
- Total sample: 15%

Is experimenting with generative AI and/or defining proofs of concept
- Energy, mining, and utilities: 25%
- Total sample: 31%

Has implemented, or is currently implementing, generative AI solutions
- Energy, mining, and utilities: 48%
- Total sample: 40%

Has established generative AI use cases that create business value
- Energy, mining, and utilities: 10%
- Total sample: 13%

Increasing generative AI adoption level →

Respondents

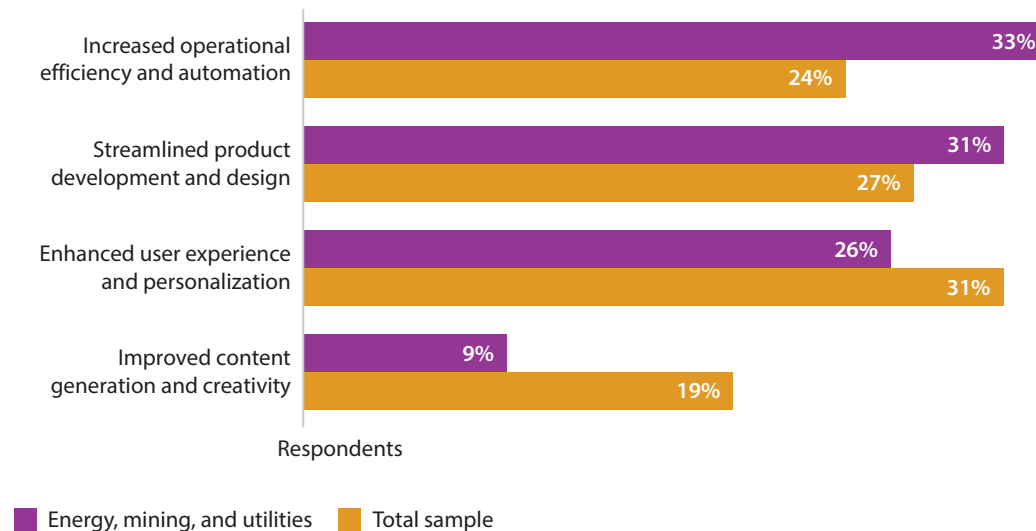■ Energy, mining, and utilities   ■ Total sample

Note: Percentage numbers do not add up to 100% because of rounding.

Automation and product development drive generative AI optimism

One-third of energy, mining, and utilities firms expect generative AI to increase operational efficiency and automation

Energy, mining and utilities companies are more skeptical of improved content and creativity — Only 9% energy, mining, and utilities expect generative AI to have a positive impact on content generation and creativity, significantly less than the overall trend (19%).

Where companies expect generative AI to have the most positive impact
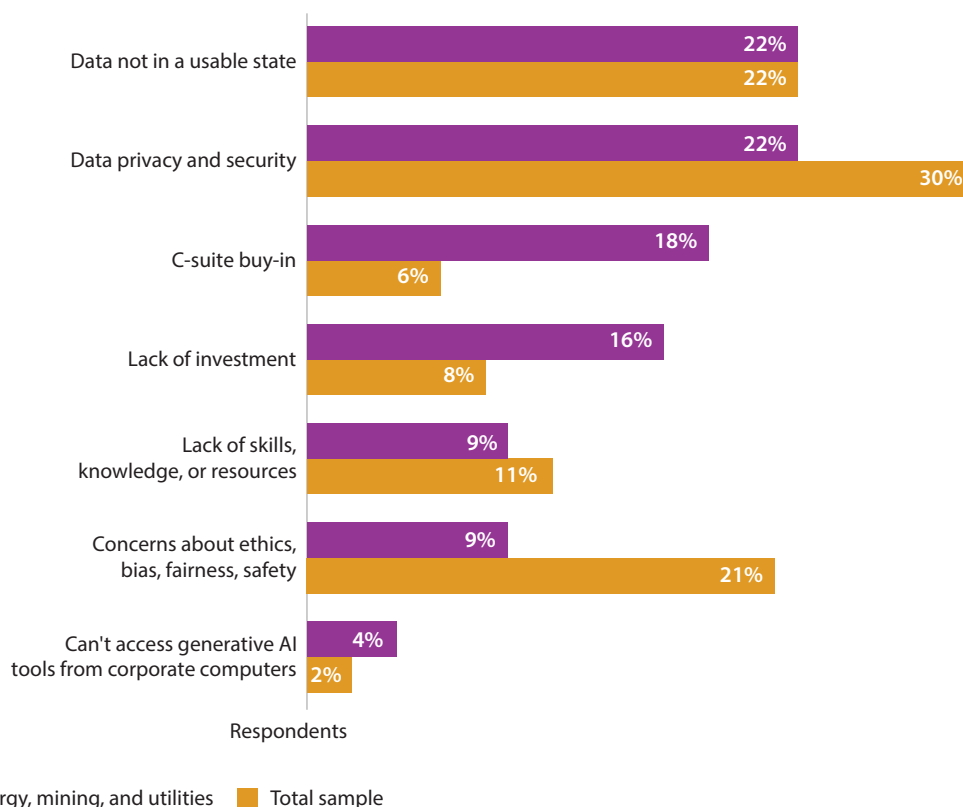

	Energy, mining, and utilities	Total sample
Increased operational efficiency and automation	33%	24%
Streamlined product development and design	31%	27%
Enhanced user experience and personalization	26%	31%
Improved content generation and creativity	9%	19%

Respondents

■ Energy, mining, and utilities   ■ Total sample

Note: Percentage numbers do not add up to 100% because of rounding.

Obstacles to generative AI adoption

Data usability and privacy are biggest obstacles for energy, mining, and utilities

Unlike the overall trend, c-suite buy-in and lack of investment hold back energy, mining, and utilities generative AI adoption — 18% of energy, mining, and utilities firms reported c-suite buy-in was a challenge, much higher than the overall trend (6%). Another 16% reported that lack of investment as a challenge to generative AI adoption.
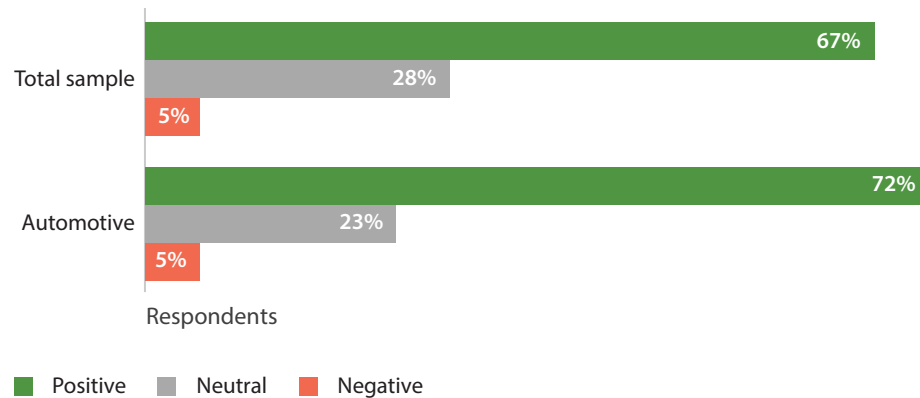
Challenges in implementing generative AI

Challenge	Energy, mining, and utilities	Total sample
Data not in a usable state	22%	22%
Data privacy and security	22%	30%
C-suite buy-in	18%	6%
Lack of investment	16%	8%
Lack of skills, knowledge, or resources	9%	11%
Concerns about ethics, bias, fairness, safety	9%	21%
Can't access generative AI tools from corporate computers	4%	2%

Respondents

■ Energy, mining, and utilities ■ Total sample

| *Note: Percentage numbers do not add up to 100% because of rounding.*

Workforce generative AI readiness

The energy, mining, and utilities workforces are more prepared for generative AI than the overall trend

Energy, mining, and utilities firms have high confidence in their workforces' readiness for generative AI — 72% the energy and mining industries are positive their workforce is ready to adopt generative AI, higher than the overall trend.

Sentiment on workforce readiness to adopt generative AI by proportion of respondents
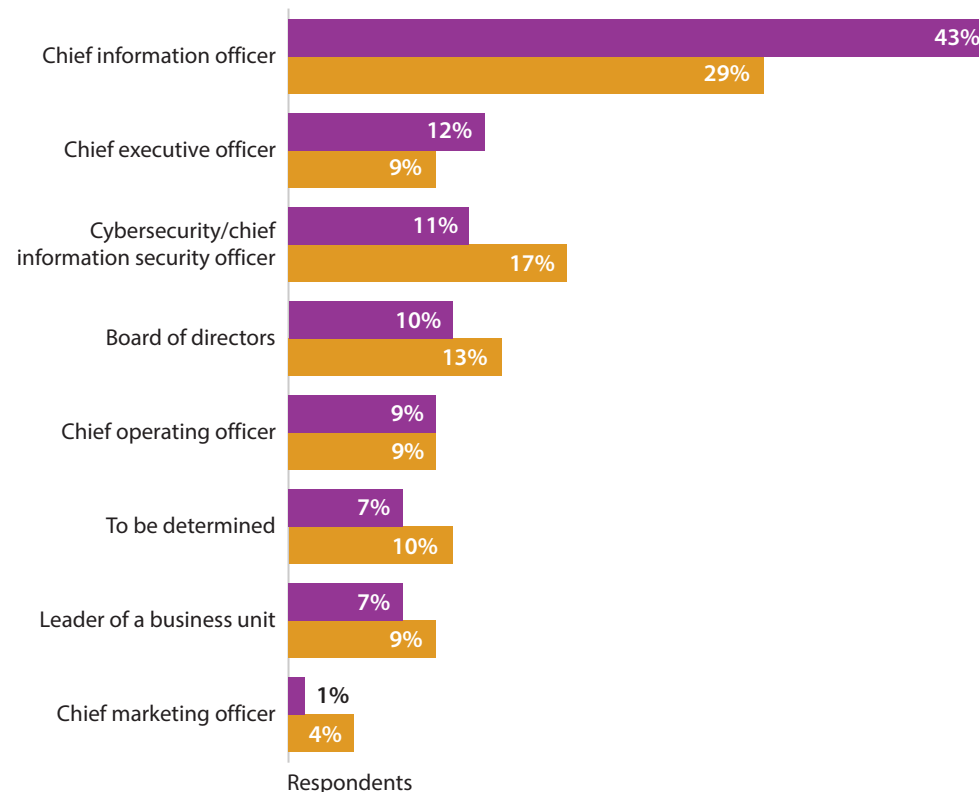

Total sample	Positive 67%, Neutral 28%, Negative 5%
Automotive	Positive 72%, Neutral 23%, Negative 5%

Respondents

■ Positive   ■ Neutral   ■ Negative

| *Note: Percentage numbers do not add up to 100% because of rounding.*

Primary sponsor of generative AI initiatives

Chief information officers lead the charge for generative AI

More energy, mining, and utilities chief information officers (CIOs) sponsor generative AI than the overall trend — 43% of energy, mining, and utilities reported the CIO is the primary sponsor of the generative AI initiatives, significantly higher than the overall trend.

Primary sponsor of generative AI initiatives by proportion of respondents

Role	Energy, mining, and utilities	Total sample
Chief information officer	43%	29%
Chief executive officer	12%	9%
Cybersecurity/chief information security officer	11%	17%
Board of directors	10%	13%
Chief operating officer	9%	9%
To be determined	7%	10%
Leader of a business unit	7%	9%
Chief marketing officer	1%	4%

Respondents

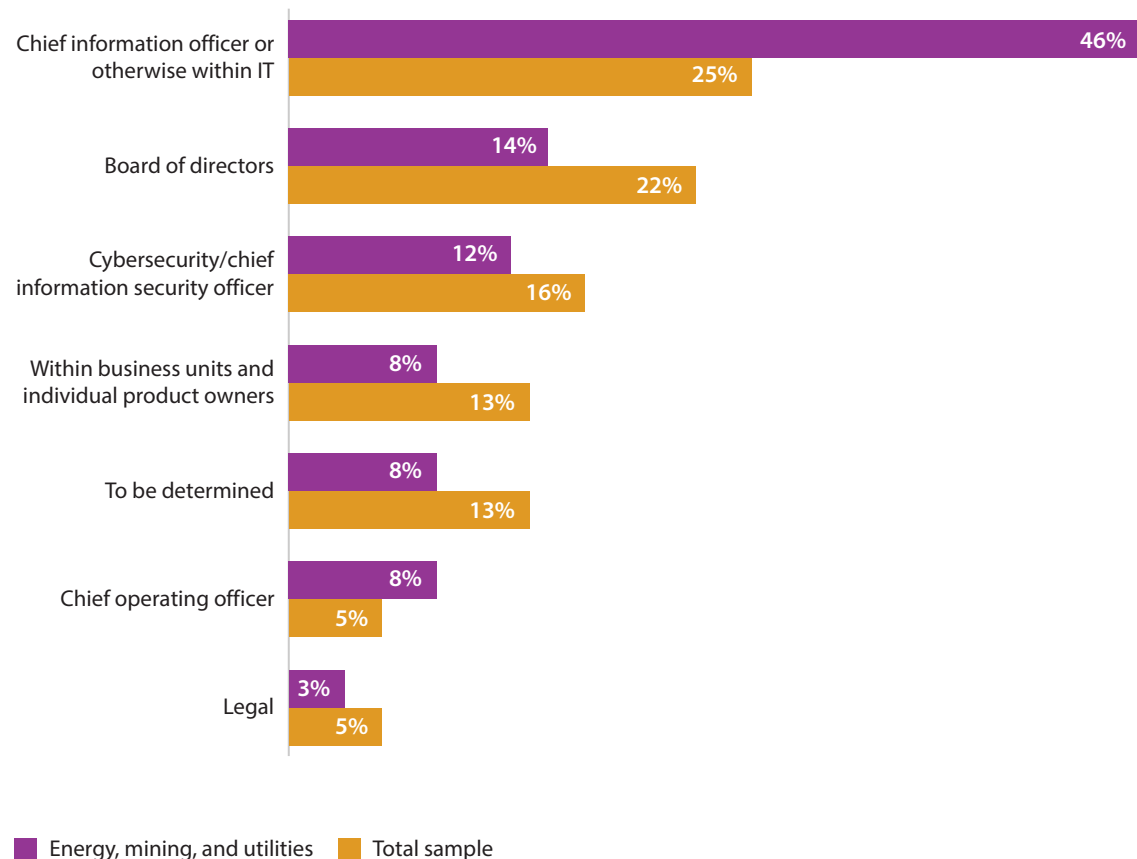■ Energy, mining, and utilities   ■ Total sample

| *Note: Percentage numbers do not add up to 100% because of rounding.*

Primary generative AI policy maker

Policy creation comes from IT

The CIO takes point on generative AI policy — 46% of energy companies report the CIOs are the primary policy maker, nearly double the overall trend (25%). Significantly less energy, mining, and utilities companies reported the board of directors as the primary policy maker than the overall trend.

Primary generative AI policy maker by proportion of respondents

Category	Energy, mining, and utilities	Total sample
Chief information officer or otherwise within IT	46%	25%
Board of directors	14%	22%
Cybersecurity/chief information security officer	12%	16%
Within business units and individual product owners	8%	13%
To be determined	8%	13%
Chief operating officer	8%	5%
Legal	3%	5%

■ Energy, mining, and utilities   ■ Total sample

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